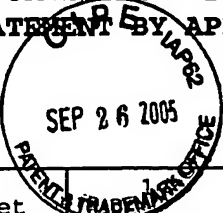


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Substitute for Form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT 	Application Number	10/790,931
	Filed	March 1, 2004
	First Named Inventor	Takemori TAKAYAMA
	Group Art Unit	1742
	Examiner Name	Deborah YEE
Sheet 1 of 2	Attorney Docket Number	04005/HG

U.S. PATENT DOCUMENTS

Exam. Inits [*]	Cite No ¹	Document Number	Kind Code ²	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion
01 01 01 01 01		2005/0051240	A1	TAKAYAMA	03-10-2005	
		6,413,328	B2	TAKAYAMA et al.	07-02-2002	
		6,258,179	B1	TAKAYAMA et al.	07-10-2001	
		5,725,690	A	OCHI et al.	03-10-1998	
		4,992,111		YAMADA et al.	02-12-1991	

FOREIGN PATENT DOCUMENTS

Exam. Inits [*]	Cite No ¹	Offc ³	Document Number ⁴	Kind Code ⁵	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion	T ⁶
01 01 01 01 01		JP	8-3629	A	MURAI	01-09-1996		*
		JP	62-218542	A	NAKAJIMA et al.	09-25-1987		*
		JP	2002-180183	A	ASANO et al.	06-26-2002		*
		JP	9-111405	A	EGUCHI et al.	04-28-1997		*
		JP	2-175836	A	TODA	07-09-1990		*

Examiner Signature	Deborah Yee	Date Considered	12-4-05
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¹ Unique citation designation number. ² See kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Place a check here if English translation is attached.

DATE MAILED: SEPTEMBER 23, 2005

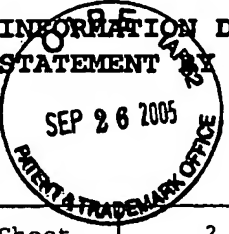
*ENGLISH-LANGUAGE ABSTRACT ENCLOSED

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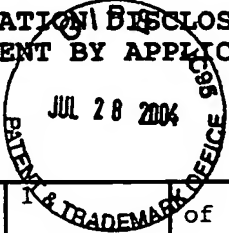
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				Group Art Unit	1742
				Examiner Name	Deborah YEE
Sheet	2	of	2	Attorney Docket Number	04005/HG
OTHER DOCUMENTS - NON-PATENT LITERATURE DOCUMENTS					
Examiner Initials ¹	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of article, title of item, date, page(s), volume-issue number(s), publisher, city and/or country where published			T ²
dy		BRICK et al., "Structure and Properties of Engineering Materials," Martensite Transformation in Iron-Carbon Alloys, 4th Edition, (1978), pp. 152-154.			
Examiner Signature	Deborah Yee		Date Considered	12-4-05	

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		Group Art Unit	Not Yet Assigned 1740
		Examiner Name	Not Yet Assigned Yee
Sheet 1 of 2	Attorney Docket Number	04005/LH	

U.S. PATENT DOCUMENTS

Exam. Inits ¹	Cite No ¹	Document Number	Kind Code ²	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion
DT	A	2004/0035499	A1	TAKAYAMA et al.	02-26-2004	

FOREIGN PATENT DOCUMENTS

Exam Inits ¹	Cite No ¹	Offc ³	Document Number ⁴	Kind Code ⁵	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion	T ⁶
DT	B	JP	03-061348 ✓	A	KOMATSU LTD.	03-18-1991		X*
DT	C	JP	08-073929 ✓	A	KOMATSU LTD.	03-19-1996		X*
DT	D	JP	08-104924 ✓	A	KOMATSU LTD.	04-23-1996		X*
DT	E	JP	2003-328070 No English translation	A	KOMATSU LTD.	11-19-2003		X*
DT	F	JP	2004-076125 ✓	A	KOMATSU LTD.	03-11-2004		X*
*English Language Abstract only								

Examiner Signature	<i>Debbie Yee</i>	Date Considered	10-4-05
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Substitute for Form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	10/790,931
				Filing Date	March 1, 2004
				First Named Inventor	T. TAKAYAMA
				Group Art Unit	Not Yet Assigned 4740
				Examiner Name	Not Yet Assigned Yee
Sheet	2	of	2	Attorney Docket Number	04005/LH

OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of article, title of item, date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
DY	G	Related U.S. Patent Application Serial No. 10/790,959, filed March 1, 2004; Inventor: T. TAKAYAMA et al.; Title: ROLLING ELEMENT AND METHOD OF PRODUCING THE SAME.	
Examiner Signature	Deborah Yee		Date Considered
			12-4-05

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		First Named Inventor		TAKAYAMA	
		Group Art Unit		1742	
		Examiner Name		Yee	
Sheet	1	of	2	Attorney Docket Number	04005/LH

U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

Exam Inits ¹	Cite No ¹	offc ³	Document Number ⁴	Kind Code ⁵	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion	T ⁶
90-010104		JP	61-9555	A	TAKAYAMA ET AL	01-17-1986		X*
		JP	64-4459	A	ITABE ET AL	01-09-1989		X*
		JP	10-176219	A	TAKAYAMA ET AL	06-03-1998		X*
		JP	11-117059	A	TAKAYAMA ET AL	04-27-1999		X*
		JP	11-222627	A	TAKAYAMA ET AL	08-17-1999		X*
		JP	2000-204464	A	HAMASAKA ET AL	07-25-2000		X*
		JP	2003-027181	A	TAKAYAMA ET AL	01-29-2003		X*
			*English abstract attached.					

Examiner Signature	Deborah Yee	Date Considered	12-4-05
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				First Named Inventor		TAKAYAMA
				Group Art Unit		1740
				Examiner Name		Yee
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OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of article, title of item, date, page(s), volume-issue number(s), publisher, city and/or country where published				T ²
		HEAT TREATMENT OF STEEL (5th Edition); Edited by the Iron and Steel Institute of Japan, March 15, 1985; pp. 44-46; 110. <i>No English translation</i>				
		K. KOMINE et al; ON RELATIONSHIP BETWEEN HALF VALUE BREADTH AND HARDNESS OF QUENCHED- TEMPERED STEELS ; Materials Vol. 26, No.280, P26 issued by Society of Materials, Japan, pp. 24-30. <i>No date</i>				
Examiner Signature				Date Considered	10-4-05	

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